

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of fingerprinting, comprising:

receiving a plurality of ~~input-master~~ datasets, each ~~master dataset~~ of said plurality of ~~input datasets~~ divided into a plurality of input segments,

wherein at least one master dataset of said plurality of ~~input-master~~ datasets is uniquely
marked; and

producing an output dataset having a plurality of output segments, each output segment
of said output dataset generated by:

selecting a corresponding ~~at least one~~ input segment from one of at least two
~~different input datasets of said plurality of input-master datasets; and~~

inserting ~~arranging~~ said selected ~~at least one corresponding~~ input segment to
produce an output dataset having a plurality of output segments into said each output
segment,

wherein ~~such that the number of output segments is equal to the number of input~~
~~segments in each input datasets~~ said selecting a corresponding input segment from one of said
plurality of master datasets is performed in such a manner that the arrangement of said plurality
of output segments in said output dataset provides fingerprinting of said output dataset.
2. (Currently Amended) The method of claim 1, wherein ~~said at least one~~ master dataset
of said plurality of ~~input-master~~ datasets includes an unmarked ~~input~~ dataset.

3. (Currently Amended) The method of claim 1, wherein ~~each~~ said at least one uniquely marked ~~input-master~~ dataset is marked using watermarking, such that the watermarking is imperceptible to human sensors.

4. (Currently Amended) The method of claim 1, wherein said selecting a corresponding at least one input segment from one of said plurality of master datasets includes pseudo-randomly selecting ~~at least one~~ a corresponding input segment from one of at least two different input said plurality of master datasets.

5. (Currently Amended) The method of claim 4, further comprising:
generating a pseudo-random sequence to enable pseudo-random selection of the corresponding input segment.

6. (Currently Amended) The method of claim 1, wherein said selecting a corresponding at least one input segment from one of said plurality of master datasets includes pseudo-randomly selecting a sequence of input segments from ~~one of at least two different input~~ said plurality of master datasets, such that the sequence is selected to provide a relatively high probability of uniquely identifying said output dataset even when said output dataset is partially copied.

7. (Currently Amended) The method of claim 6, wherein selecting a sequence of input segments includes
building a pseudo-random sequence of segments,

wherein the pseudo-random sequence ~~providing~~provides information about which input segment was used to build the corresponding output segment.

8. (Original) The method of claim 7, wherein the pseudo-random sequence is represented as a representative master key (RMK).

9. (Original) The method of claim 7, wherein the pseudo-random sequence is represented as a sequence of tuples.

10. (Original) The method of claim 7, further comprising:
burning said produced output dataset onto a physical medium.

11. (Original) The method of claim 10, further comprising:
linking said pseudo-random sequence of segments to said physical medium to uniquely identify each physical medium.

12. (Currently Amended) A fingerprinting apparatus, comprising:
a plurality of receiving units to receive a plurality of ~~input~~master datasets, each master dataset of the plurality of ~~input~~master datasets divided into a plurality of input segments,
wherein at least one master dataset of the plurality of ~~input~~master datasets is uniquely marked;

a generator to generate an output dataset having a plurality of output segments, each output segment of said output dataset generated by a selector to select ~~selecting~~ a corresponding

at least one input segment from one of at least two different input datasets of the said plurality of input master datasets; and

at least one combiner to arrange the selected at least one corresponding input segment to produce an output dataset having a plurality of into said each output segments segment,

wherein such that the number of output segments is equal to the number of input segments in each input datasets said generator and said at least one combiner operates in such a manner that the arrangement of said plurality of output segments in said output dataset provides fingerprinting of said output dataset.

13. (Currently Amended) The fingerprinting apparatus of claim 12, wherein the at least one master dataset of the plurality of input master datasets includes an unmarked input dataset.

14. (Original) The fingerprinting apparatus of claim 12, further comprising:

a pseudo-random number generator to generate a sequence of pseudo-random numbers.

15. (Currently Amended) The fingerprinting apparatus of claim 14, wherein said selector generator is configured to receive the sequence of pseudo-random numbers,

wherein such that said selector generator selects the at least one said corresponding input segment based on the received sequence of pseudo-random numbers.

16. (Original) The fingerprinting apparatus of claim 14, further comprising:

a media recording device to record the produced output dataset onto a physical medium.

17. (Original) The fingerprinting apparatus of claim 16, further comprising:
a storage device that links the sequence of pseudo-random numbers to the physical medium to uniquely identify each physical medium.
18. (Currently Amended) A fingerprinting system for fingerprinting media, comprising:
a receiver to receive said media divided into a plurality of media segments;
a first encoder to mark said media, said first encoder producing at least one marked media, each of the at least one marked media divided into a plurality of marked media segments;
a second encoder to compress said media and ~~the said~~ at least one marked media;
a generator to generate fingerprinted media having a plurality of fingerprinted segments,
each fingerprinted segment of said fingerprinted media generated by a selector to select selecting
a corresponding at least one media or marked media segment from one of said media and the
said at least one marked media; and
at least one combiner to arrange the selected corresponding at least one media or marked
media segment to produce fingerprinted media having a plurality of into said each fingerprinted
segments segment,
wherein such that the number of fingerprinted segments is equal to the number of media
or marked media segments in each media or marked media said generator and said at least one
combiner operates in such a manner that the arrangement of said plurality of fingerprinted
segments provides said fingerprinted media.
19. (Original) The fingerprinting system of claim 18, further comprising:
a pseudo-random number generator to generate a sequence of pseudo-random numbers.

20. (Currently Amended) The fingerprinting system of claim 19, wherein said ~~selector~~ generator is configured to receive the sequence of pseudo-random numbers,

wherein such that said selector-generator selects a said corresponding media or marked media segment based on the received sequence of pseudo-random numbers

21. (Original) The fingerprinting system of claim 19, further comprising;
a media recording device to record the produced fingerprinted media onto a physical medium.

22. (Original) The fingerprinting system of claim 21, further comprising:
a storage device that links the sequence of pseudo-random numbers to the physical medium to uniquely identify the medium.

23. (Currently Amended) The fingerprinting system of claim 21, wherein the physical medium includes a DVD or video tape.

24. (Original) The fingerprinting system of claim 21, wherein the physical medium includes content downloaded from the Internet.

25. (Original) The fingerprinting system of claim 21, wherein the physical medium includes video-on-demand content transported as stream of data.

26-31. (Canceled)

32. (Currently Amended) A computer program, stored in a tangible storage medium, for use in fingerprinting an output dataset having a plurality of output segments, the program comprising executable instructions that cause a computer to:

receive a plurality of ~~input master~~ datasets, each master dataset of said plurality of input datasets divided into a plurality of input segments,

wherein at least one master dataset of said plurality of ~~input master~~ datasets is uniquely marked; and

produce an output dataset having a plurality of output segments, each output segment of said output dataset generated by:

selecting a corresponding ~~at least one~~ input segment from one of at least two different input datasets of said plurality of ~~input master~~ datasets; and

inserting ~~arrange~~ said selected corresponding ~~at least one~~ input segment ~~to produce an output dataset having a plurality of output segments~~ into said each output segment,

wherein ~~such that the number of output segments is equal to the number of input segments in each input dataset~~ said selecting a corresponding input segment from one of said plurality of master datasets is performed in such a manner that the arrangement of said plurality of output segments in said output dataset provides fingerprinting of said output dataset.

33-39. (Canceled)

40. (New) A fingerprinting apparatus, comprising:

- means for receiving a plurality of master datasets, each master dataset divided into a plurality of input segments,
- wherein at least one master dataset of said plurality of master datasets is uniquely marked; and
- means for producing an output dataset having a plurality of output segments, each output segment of said output dataset generated by:
 - means for selecting a corresponding input segment from one of said plurality of master datasets; and
 - means for inserting said selected corresponding input segment into said each output segment,
- wherein said means for selecting a corresponding input segment from one of said plurality of master datasets is performed in such a manner that the arrangement of said plurality of output segments in said output dataset provides fingerprinting of said output dataset.

41. (New) A fingerprinting system for fingerprinting media, comprising:

- means for receiving said media divided into a plurality of media segments;
- means for marking said media, said means for marking producing at least one marked media, each of the at least one marked media divided into a plurality of marked media segments;
- means for compressing said media and said at least one marked media;
- means for generating fingerprinted media having a plurality of fingerprinted segments, each fingerprinted segment of said fingerprinted media generated by selecting a corresponding media or marked media segment from one of said media and said at least one marked media; and

at least one means for arranging the selected corresponding media or marked media segment into said each fingerprinted segment,

wherein said means for generating and said at least one means for arranging operates in such a manner that the arrangement of said plurality of fingerprinted segments provides said fingerprinted media.